This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): An electrical power conversion system for a vehicle, comprising:

a load receiver for powering and controlling a vehicle load ~~loads~~, said load receiver comprising:

a decoupler for decoupling a communication signal from ~~an~~ vehicle DC electrical power bus, said communication signal containing encoded load information, wherein the decoupler electrically isolates the communication signal from the power bus ~~signal~~;

a data receiver for receiving the communication signal from the decoupler and deriving load data therefrom;

a data decoder for decoding the load data received from the data receiver and converting ~~it~~ the load data to a converter signal according to the encoded load information;

and a power converter for receiving the converter signal from the data decoder for controlling an operation of one or both of the converter and the load, wherein the power converter converts an electrical power bus input of a first voltage into a power output at a second voltage for powering the ~~loads~~ vehicle load.

Claim 2 (currently amended): An electrical power conversion system according to claim 1, further comprising:

a load transmitter for transmitting encoded vehicle load information in a transmitted communication signal

onto the electrical power bus, said load transmitter comprising:

a data encoder for encoding the vehicle load information into load data;

a data transmitter for receiving the load data from the data encoder and generating and transmitting [[a]] the communication signal; and

a coupler for receiving the communication signal from the data transmitter and coupling the communication signal onto the vehicle DC electrical power bus.

Claim 3 (currently amended): An electrical power conversion system according to claim 1, wherein:

the load-information contains load state and load address information; and further wherein

the power converter sets the state of the vehicle load according to the converter signal when the power converter is powering the vehicle load associated with that load address.

Claim 4 (currently amended): An electrical power conversion system according to claim 2, wherein

the load-information contains load state and load address information; and further wherein

the power converter sets the state of the vehicle load according to the converter signal when the power converter is powering the vehicle load associated with that load address.

Claim 5 (currently amended): An electrical power conversion system according to claim 2 further comprising:

a data encoder for encoding return load information from one or both of the power converter ~~or~~ and the load into load data;

a load return transmitter for generating and transmitting a return communication signal from the return load data from the data encoder; and

a second coupler for coupling the return communication signal ~~data~~ received from the load return transmitter to the vehicle DC electric power bus.

Claim 6 (original): An electrical power conversion system according to claim 5, wherein

the load information contains vehicle load state and load address information; and further wherein

the power converter sets the state of the vehicle load according to the converter signal when the power converter is powering the vehicle load associated with that load address.

Claim 7 (currently amended): An electrical power conversion system according to claim 1 for powering vehicle loads, wherein the first voltage is about thirty-six volts to forty-two volts (36V-42V) and the second voltage is about twelve volts to fourteen volts (12V-14V).

Claim 8 (currently amended): An electrical power conversion system according to claim 2 for powering vehicle loads, wherein the first voltage is about thirty-six volts to forty-two volts (36V-42V) and the second voltage is about twelve volts to fourteen volts (12V-14V).

Claim 9 (currently amended): An electrical power conversion system according to claim 3 for powering vehicle loads, wherein the first voltage is about thirty-six volts to forty-two volts (36V-42V) and the second voltage is about

twelve volts to fourteen volts (12V~~10~~-14V).

Claim 10 (currently amended): An electrical power conversion system according to claim 4 for powering vehicle loads, wherein the first voltage is about thirty-six volts to forty-two volts (36V-42V) and the second voltage is about twelve volts to fourteen volts (12V-14V).

Claim 11 (currently amended): An electrical power conversion system according to claim 5 for powering vehicle loads, wherein the first voltage is about thirty-six volts to forty-two volts (36V-42V) and the second voltage is about twelve volts to fourteen volts (12V-14V).

Claim 12 (currently amended): An electrical power conversion system according to claim 6 for powering vehicle loads, wherein the first voltage is about thirty-six volts to forty-two volts (36V-42V) and the second voltage is about twelve volts to fourteen volts (12V-14V).

Claim 13 (currently amended): An electrical power conversion system for powering vehicle loads, comprising:

a load transmitter for transmitting encoded load information in a communication signal onto a vehicle electrical power bus operating at about thirty-six volts to forty-two volts (36V-42V) DC, said load transmitter comprising:

a data encoder for encoding load state and load address information into encoded data;

a frequency shift keying transmitter for receiving the encoded data from the data encoder and transmitting the encoded data as an FSK communication signal; and

a coupler for coupling the FSK communication signal onto the vehicle electrical power bus;

and

a load receiver for controlling vehicle loads and providing said vehicle loads with electrical power at about twelve volts to fourteen volts (12V-14V), said load receiver comprising:

a decoupler for decoupling the FSK communication signal from ~~an~~ the vehicle electrical power bus, said FSK communication signal containing the encoded load state and load address information, wherein the decoupler electrically isolates the FSK communication signal from the power signal;

a frequency shift keying receiver for receiving the FSK communication signal from the decoupler and deriving encoded data from the FSK communication signal;

a data decoder for decoding the encoded data received from the frequency shift keying receiver and converting ~~it~~ the encoded data into a converter signal according to the decoded load state and load address information; and

a power converter for converting the vehicle electrical bus power signal of about thirty-six volts to forty-two volts (36V-42V) DC into a load power output equivalent to about twelve volts to fourteen volts (12V-14V) for powering vehicle electrical loads, wherein the power converter sets the state of [[a]] the load in accordance with the converter signal when the power converter is

powering [[a]] the load associated with that load address.

Claim 14 (original): An electrical power conversion system for a vehicle electrical system according to claim 13, wherein the power converter contains a DC-to-DC converter.

Claim 15 (original): An electrical power conversion system for a vehicle electrical system according to claim 13, wherein the power converter contains a DC-to-AC inverter.

Claim 16 (currently amended): An electrical power conversion system for powering vehicle loads, comprising:

a load transmitter for transmitting encoded load information in a communication signal onto a vehicle electrical power bus operating at about thirty-six volts to forty-two volts (36V-42V) DC, said load transmitter comprising:

a data encoder for encoding load state information and load address information into encoded data; and

a frequency shift keying transmitter for receiving the encoded data from the data encoder and transmitting the encoded data as an FSK communication signal onto a vehicle communication bus;

and

a load receiver for controlling vehicle loads and providing said vehicle loads with electrical power at about twelve volts to fourteen volts (12V-14V), said load receiver comprising:

a frequency shift keying receiver for receiving the communication signal from the vehicle

communication bus and deriving encoded data from the FSK communication signal;

a data decoder for decoding the encoded data received from the frequency shift keying receiver and converting ~~it~~ the encoded data into a converter signal according to the decoded load state and load address information; and

a power converter for converting the vehicle electrical bus power signal of about thirty-six volts to forty-two volts (36V-42V) DC into a load power output equivalent to about twelve volts to fourteen volts (12V-14V) for powering vehicle electrical loads, wherein the power converter sets the state of [[a]] the load in accordance with the converter signal when the power converter is powering [[a]] the load associated with that load address.

Claim 17 (original): An electrical power conversion system for a vehicle electrical system according to claim 16, wherein the power converter contains a DC-to-DC converter.

Claim 18 (original): An electrical power conversion system for a vehicle electrical system according to claim 16, wherein the power converter contains a DC-to-AC inverter.

Claim 19 (currently amended): An electrical power conversion system for a vehicle, comprising:

a power converter connected to ~~an~~ a vehicle electrical power bus that provides DC current, said power converter for converting the bus voltage into a load voltage different from the bus voltage, said load voltage for powering a vehicle load; and

a data receiver for receiving an encoded communication signal from the electrical power bus, said encoded communication signal including encoded load information for controlling an operation of one or both of said power converter and said vehicle load.

Claim 20 (currently amended): The electrical power conversion system of claim 19, further comprising a data decoder for decoding the encoded communication signal and converting ~~it~~ said communication signal to a control signal for said controlling an operation of one or both of said power converter and said load, wherein said controlling is done according to said load information.